

## ABSTRACT OF THE DISCLOSURE

5 A fuel cell system includes a fuel cell. A current density measuring apparatus is provided on a cathode side of the fuel cell. The current density measuring apparatus includes a plurality of Hall elements provided at positions corresponding to measuring positions in an electrode surface. Each of the Hall element is attached to a ferrite core fitted to a pole of a sensor mounting plate. The  
10 ferrite core and the Hall element attached to the pole make up a current sensor.